

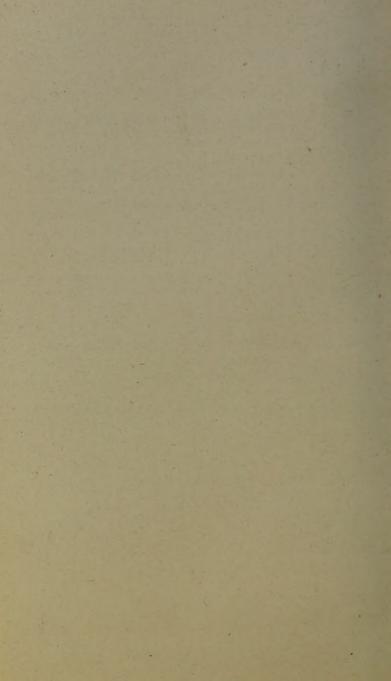
EXTRACTED FROM THE PROCEEDINGS OF THE INDIANA ACADEMY OF SCIENCES FOR 1903.

# REVISED LIST OF INDIANA

# PLANT RUSTS

By J. C. Arthur.

DISTRIBUTED DECEMBER 1904.



## REVISED LIST OF INDIANA PLANT RUSTS.

#### By J. C. ARTHUR.

Five years ago a list of the plant rusts of Indiana was prepared, and printed in the Proceedings for 1898, to show not only how many and what species occur within the State, but the application of the revised nomenclature, to which great attention has been directed within the last decade. At that time the writer had made little study of the basis for the generic names, but accepted largely the conclusions announced by Kuntze in his Revisio generum plantarum. Since the presentation of the list, two other papers have been brought before the Academy by the writer, discussing the status of the genus names Puccinia and Gymnosporangium, the only considerable points in controversy touched by the Indiana list.

In order to embody the latest conclusions and reaffirm those remaining unchanged, as well as to correct a few errors and add the species brought to light since that list was issued, the writer presents herewith a revised list of the Indiana plant rusts. It is given in the latest nomenclature to familiarize the members of the Academy with this phase of scientific movement. It is not a nomenclature that can be generally used at present, for the reason that no standard works of reference are yet available employing the accepted names. But it does not materially detract from the usefulness of a local list, like the present one, and yet gives the reader a chance to see the direction in which the new movement is leading.

The present list, like the preceding one, does not include the unattached aecidia and uredo. Some thirteen of these that have been mentioned from time to time in the Proceedings of the Academy have been traced to their teleutosporic connections since the last revised list was published, and are here included as autonomous species. Besides these, eleven species of rusts have been added to the State flora, having never been reported in any form before. The hosts reported in this list for the first time are recorded by month, county and collector. The specimens, on which these data are based, are in the herbarium at Purdue University. The references after the other hosts are to the page and

year of the Proceedings of the Academy, where additional information can be found. The nomenclature for hosts is that of Britton and Brown's "Illustrated Flora of the Northern States and Canada."

The present list contains 105 species of plant rusts under sixteen genera, being an increase of more than 33 per cent. over the previous list of 1898, which contained 80 species under ten genera.

### COLEOSPORIACEÆ

- 1. Coleosporium Sonchi-Arvensis (Pers.) Wint.
  - On Hieracium scabrum Michx. Vigo Co., 5, 1893 (Underwood).
- 2. Coleosporium Ipomææ (Schw.) Bur.
  - On Ipomœa pandurata (L.) Mey. 1896:171, 218.
- 3. Coleosporium Solidaginis (Schw.) Thuem.
  - On Aster azureus Lindl. 1893:50
  - On Aster cordifolius L. 1893:51.
  - On Aster Novæ-Angliæ L. 1893:51.
  - On Aster paniculatus Lam. 1893:51.
  - On Aster puniceus L. 1893:51.
  - On Aster sagittifolius Willd. 1893:51.
  - On Aster salicifolius Lam. 1893:51
  - On Aster Shortii Hook. 1893:51.
  - On Aster Tradescanti L. 1893:51.
  - On Solidago arguta Ait. 1893:51.
  - On Solidago cæsia L. 1893:51.
  - On Solidago Canadensis L. 1893:51.
  - On Solidago flexicaulis L. (S. latifolia L.) 1893:51.
  - On Solidago patula Muhl. 1893:51.
  - On Solidago rugosa Mill. 1893:51.
  - On Solidago serotina Ait. 1893:51.
- 4. COLEOSPORIUM VERNONIÆ B. & C.
  - On Vernonia fasciculata Michx. 1893:51.
  - On Vernonia Noveboracensis (L.) Willd. 1893:51.

#### MELAMPSORACE Æ.

- 5. Chrysomyxa albida Kühn. (Coleosporium Rubi E. & H.)
  - On Rubus cuneifolius Pursh. 1893:50.
  - On Rubus villosus Ait. 1893:50.

- 6. PUCCINIASTRUM AGRIMONIÆ (DC.) Diet. (Cwoma Agrimoniæ Schw.)
  - On Agrimonia hirsuta (Muhl.) Bick. (A. Eupatoria Am. Auct.) 1893:50. 1896:218.

On Agrimonia parviflora Sol. 1893:50.

- 7. THECOPSORA HYDRANGEÆ (B. & C.) Magn. (Uredo Hydrangeæ B. & C.) On Hydrangea arborescens L. 1893:56. 1896:218.
- 8. Нуаlopsora Роlуроdіі (Pers.) Magn. (Uredo Polypodii DC.) On Cystopus fragilis (L.) Bernh. 1893:56.
- 9. MELAMPSORA MEDUSÆ Thuem.

On Populus balsamifera L. 1893:51.

On Populus deltoides Marsh. (P. monilifera Ait.) 1893:51. 1896:218.

On Populus grandidentata Michx. 1893:51.

On Populus tremuloides Michx. 1893:51. 1898:188.

10. MELAMPSORA FARINOSA (Pers.) Schreet.

On Salix amygdaloides Anders. Steuben Co., 8, 1903 (Kellerman).

On Salix cordata Muhl. 1893:51.

On Salix discolor Muhl. 1893:51. 1896:218.

On Salix fluviatilis Nutt. (S. longifolia Muhl.) 1893:52.

On Salix interior Rowl. Steuben Co., 8, 1903 (Kellerman).

On Salix nigra Marsh. 1893:51.

11. MELAMPSORIDIUM BETULINUM (Pers.) Kleb.

On Betula lutea Michx. Steuben Co., 8, 1903 (Kellerman).

#### PUCCINIACEÆ.

12. Aregma disciflora (Tode) Arth. (Phragmidium subcorticium Wint.)

On Rosa Carolina L. 1893:52.

On Rosa humilis Marsh. (R. lucida Am. Auct.) 1893:52.

On Rosa setigera Michx. 1893:52.

13. AREGMA FRAGARLIÆ (DC.) Arth.

On Potentilla Canadensis L. 1893:52. 1896:218.

14. AREGMA SPECIOSA Fr. (Phragmidium speciosum Cke.)

On Rosa Carolina L. 1896:219.

On Rosa humilis Marsh. 1898:179.

15. TRIPHRAGMIUM ULMARIÆ (Schum.) Lk.

On Ulmaria rubra Hill. Tippecance Co., 6, 1899 (Arthur).

- 16. GYMNOCONIA INTERSTITIALIS (Schl.) Lagh. (Puccinia Peckiana Howe and Æcidium nitens Schw.)
  - On Rubus occidentalis L. 1893:54.
  - On Rubus villosus Ait. 1893:54. 1896:220. 1898:188.
- 17. CÆOMURUS ACUMINATUS (Arth.) Kuntze.
  - On Spartina cynosuroides Willd. Jasper Co., 5, 1903 (Arthur); Steuben Co., 8, 1903 (Kellerman).
- Cæomurus Caladii (Schw.) Kuntze. (Uromyces Caladii Farl.)
   On Arisæma triphyllum (L.) Torr. 1893:56, 1896:222. 1898:189.
   On Arisæma Dracontium (L.) Schott. 1893:56, 1896:222.
- CÆOMURUS CARYOPHYLLINUS (Schr.) Kuntze.
   On Dianthus Caryophyllus L. 1893;56.
- 20. CÆOMURUS EUPHORBIÆ (Schw.) Kuntze.
  - On Euphorbia dentata Michx. 1893:57. 1896:222.
  - On Euphorbia nutans Lag. (E. hypericifolia Gr.) 1893:57. 1896:222.
  - On Euphorbia humistrata Engelm. Tippecanoe Co., 6, 1902 (Arthur).
- 21. CÆOMURUS SOLIDAGINI-CARICIS (Arth.) nom. nov.
  - On Carex lanuginosa Michx. Jasper Co., 3, 1903 (Arthur).
  - On Carex varia Muhl. Jasper Co., 3, 1903 (Arthur).
- 22. CÆOMURUS GRAMINICOLUS (Burr.) Kuntze.
  - On Panicum virgatum L. 1893:57.
- 23. Cæomurus Howei (Pk.) Kuntze.
  - On Asclepias incarnata L. 1893:57. 1896:222.
  - On Asclepias purpurascens L. 1893:57.
  - On Asclepias Syriaca L. (A. Cornuti Dec.) 1893:57, 1896:222, 1898:187.
- 24. CÆOMURUS HEDYSARI-PANICULATI (Schw.) Arth.
  - On Meibomia Canadensis (L.) Kuntze (Desmodium C.). 1896:222.
  - On Meibomia canescens (L.) Kuntze (Desmodium c.). 1893:57.
  - On Meibomia Dillenii (Darl.) Kuntze (Desmodium D.), 1893:57, 1896:222
  - On Meibomia lævigata (Nutt.) Kuntze (Desmodium l.). 1893:57.
  - On Meibomia paniculata (L.) Kuntze (Desmodium p.). 1893:57.
  - On Meibomia viridiflora (L.) Kuntze (Desmodium v.). 1893:57.

25. CÆOMURUS HYPERICI-FRONDOSI (Schw.) Arth.

On Hypericum Canadense L. 1893:57.

On Hypericum mutilum L. 1893:57.

On Triadenum Virginicum (L.) Raf. (Elodea campanulata Marsh.) 1893:57.

26. CÆOMURUS JUNCI (Schw.) Kuntze.

On Juneus tenuis Willd, 1896:222, 1898:187.

27. Cæomurus Lespedezæ-Procumbentis (Schw.) Arth.

On Lespedeza frutescens (L.) Brit. (L. reticulata Pers.) 1893:57.

On Lespedeza procumbens Michx. 1893:57.

On Lespedeza repens (L.) Bart. 1896:222.

On Lespedeza capitata Michx. Jasper Co., 3, 1903 (Arthur).

On Lespedeza hirta (L.) Ell. Marshall Co., 10, 1893 (Underwood).

28. CÆOMURUS OROBI (Pers.) nom. nov.

On Vicia Americana Muhl, 1896:222.

29. CÆOMURUS PERIGYNIUS (Halst.) Kuntze.

On Carex virescens Muhl. 1893:57.

30. CÆOMURUS PHASEOLI (Pers.) Arth.

On Strophostyles helvola (L) Brit. (Phaseolus diversifolius Pers.) 1893:56. 1896:172, 222.

On Vigna Sinensis (L.) Endl. Tippecanoe Co., 10, 1903 (Arthur).

- 31. Cæomurus plumbarius (Pk.) Kuntze. (Uredo gaurina (Pk.) DeT.)
  On Gaura biennis L. 1896:222.
- 32. Cæomurus Polygoni (Pers.) Kuntze.

On Polygonum aviculare L. 1893:57. 1896:223.

On Polygonum erectum L. 1893:58.

33. CÆOMURUS RUDBECKLÆ (Arth. & Holw.) Kuntze.

On Rudbeckia laciniata L. 1894:152. 1898:187.

34. CÆOMURUS TRIFOLII (Hedw.) Gray.

On Trifolium hybridum L. 1893:58.

On Trifolium medium L. 1893:58.

On Trifolium pratense L. 1893:58. 1896:223. 1898:187, 189.

On Trifolium repens L. 1893:58.

35. Cæomurus Rhyncosporæ (E. & G.) Kuntze.

On Rhyncospora alba Vahl. Tippecanoe Co., 10, 1894 (King).

36. DICÆOMA ALBIPERIDIUM (Arth.) nom. nov.

On Carex pubescens Muhl. Tippecanoe Co., 4, 1901 (Arthur). 10-A. of Science, '03.

- 37. DICÆOMA Aletridis (B. & C.) Kuntze.
  On Aletris farinosa L. Lake Co., 7, 1884 (Hill).
- 38. DICÆOMA AMBIGUA (A. & S.) Kuntze.
  On Galium Aparine L. 1896:172.
- DICÆOMA ANDROPOGONIS (Schw.) Kuntze. (Puccinia Andropogi Schw.)
   On Andropogon furcatus Muhl. 1896:219.
   On Andropogon scoparius Michx. 1896:219.
   On Pentstemon hirsutus (L.) Willd. 1896:217.
- 40. DICÆOMA ANEMONES-VIRGINIANÆ (Schw.) Arth. (Puccinia solida Schw.)
  - On Anemone cylindrica Gr. 1896:219.
  - On Anemone Virginiana L. Tippecanoe Co., 6, 1903 (Arthur); Steuben Co., 8, 1903 (Kellerman).
- 41. DICÆOMA ANGUSTATUM (Pk.) Kuntze.
  - On Eriophorum polystachyon L. Noble Co., 8, 1884 (Van Gorder).
  - On Eriophorum Virginicum L. Noble Co., 8, 1884 (Van Gorder).
  - On Scirpus atrovirens Muhl. 1893:52. 1896:219.
  - On Scirpus cyperinus (L.) Kunth. 1893:52.
  - On Lycopus Americanus Muhl. (L. sinuatus Ell.) 1898:189.
- DICÆOMA APOCRYPTUM (E. & Tr.) Kuntze.
   On Hystrix Hystrix (L.) Millsp. 1893:52.
- DICÆOMA ARGENTATUM (Schultz) Kuntze.
   On Impatiens biflora Walt. (L. fulva Nutt.) 1893:52. 1896:220.
- 44. DICÆOMA ASPARAGI (DC.) Kuntze.
  - On Asparagus officinalis L. Lake Co., 10, 1899 (Breyfogle); Fountain Co., 9, 1900 (Beatty); Tippecanoe Co., 3, 1901 (Arthur); Stenben Co., 8, 1903 (Kellerman).
- 45. DICÆOMA ASPERIFOLII (Pers.) Kuntze. (Puccinia Rubigo-vera (DC.) Wint.)
  - On Avena sativa L. 1893:55.
  - On Secale cereale L. 1896:221.
- 46. DICÆOMA ASTERIS (Duby) Kuntze.
  - On Aster cordifolius L. 1893:52.
  - On Aster lateriflorus (L.) Brit. (A. diffusus Ait.) 1896:219.
  - On Aster paniculatus Lam. 1893:52.

47. DICÆOMA CANALICULATA (Schw.) Kuntze. (Puccinia nigrovelata E. & T. and P. indusiata D. & H.)

On Cyperus strigosus L. 1893:53, 54, 1894:154, 157, 1896:219, 220.

48. DICÆOMA CARICIS-ASTERIS (Arth.) nom. nov.

On Aster cordifolius L. 1893:49.

On Aster Drummondii Lindl. Tippecanoe Co., 5, 1901 (Arthur).

On Aster paniculatus Lam. Tippecanoe Co., 5, 1901 (Arthur).

On Aster sagittifolius Willd. 1893:49.

On Carex cephalophora Muhl. Tippecanoe Co., 6, 1902 (Arthur).

On Carex fœnia Willd. Tippecanoe Co., 4, 1901 (Arthur).

49. DICÆOMA CARICIS-ERIGEBONTIS (Arth.) nom. nov.

On Erigeron annuus L. 1894:151.

On Erigeron ramosus (Walt.) B. S. P. Jasper Co., 6, 1903 (Arthur)

On Leptilon Canadense (L.) Britt. Jasper Co., 6, 1903 (Arthur).

On Carex festucacea Willd. Tippecanoe Co., 4, 1901 (Arthur).

On Carex straminea Willd. 1893:52.

50. DICÆOMA CARICIS-SOLIDAGINIS (Arth.) nom. nov.

On Solidago cæsia L. 1893:49.

On Solidago Canadensis L. 1893:49.

On Solidago flexicaulis L. (S. latifolia L.) 1893:49.

On Solidago patula Muhl. Tippecanoe Co., 6, 1902 (Arthur).

On Carex Jamesii Schw. Tippecanoe Co., 4, 1902 (Arthur).

On Carex tetanica Schk. Tippecanoe Co., 6, 1899 (Arthur).

DICÆOMA CHRYSANTHEMI (Roze) nom. nov.
 On Chrysanthemum Indicum L. Tippecanoe Co., 10, 1899 (Dorner).

52. DICÆOMA CIRCÆÆ (Pers.) Kuntze.

On Circæa Lutetiana L. 1893:53. 1896:219.

DICÆOMA CONVOLVULI (Pers.) Kuntze,
 On Convolvulus sepium L. 1893:53. 1896:219.

54. DICÆOMA DAYI (Clint.) Kuntze.

On Steironema ciliatum (L.) Raf. 1893:53.

55. DICÆOMA DULICHII (Syd.) nom. nov.

On Dulichium arundinacea (L.) Brit. 1893:52.

64.

56. DICÆOMA EATONIÆ (Arth.) nom. nov.

On Eatonia Pennsylvanica (DC.) Gray. Tippecanoe Co., 5, 1903 (Arthur).

On Ranunculus abortivus L. 1893:50.

57. DICÆOMA ELEOCHARIDIS (Arth.) Kuntze.

On Eleocharis palustris (L.) R. & S. 1893:53. 1896:219.

58. DICÆOMA ELLISIANUM (Thuem.) Kuntze.

On Andropogon scoparius Michx. Tippecanoe Co., 11, 1898 (Stuart).

DICÆOMA EMACULATUM (Schw.) Kuntze.
 On Panicum capillare L. 1893:53, 1896:220.

DICÆOMA EPIPHYLLUM (L.) Kuntze. (Puccinia Poarum Niels.)
 On Poa pratensis L. 1893:57. 1898:189.

61. DICÆOMA FUSCUM (Pers.) Kuntze.

On Anemone quinquefolia L. (A. nemorosa Mx.) 1894:151.

62. DICÆOMA HELIANTHI (Schw.) Kuntze.

On Helianthus annuus L. 1893:55.

On Helianthus divaricatus L. 1893:55.

On Helianthus giganteus L. Steuben Co., 8, 1903 (Kellerman).

On Helianthus grosse-serratus Mart. 1893:55, 1896:221.

On Helianthus mollis Lam. Jasper Co., 3, 1903 (Arthur).

On Helianthus strumosus L. 1893:55.

On Helianthus tracheliifolius Mill. 1893:55.

63. DICÆOMA HELIOPSIDIS (Schw.) Kuntze.
On Heliopsis scabra Dunal. 1893:54.

On Heliopsis scapra Dunal. 1893;54.

Dicæoma Muhlenberglæ (A. & H.) nom. nov.

65. DICÆOMA WINDSORIÆ (Schw.) Kuntze.

On Sieglingia seslerioides (Mx.) Scrib. (*Triodia cuprea* Jacq.) 1894:154. 1896:221.

On Ptelea trifoliata L. 1893:50, 1896:217.

On Muhlenbergia diffusa Schreb. 1893:53, 55.

On Muhlenbergia sylvatica Torr. 1896:221.

66. DICÆOMA IMPATIENTIS (Schw.) nom. nov.

On Elymus Virginieus L. 1893:55. 1896:221.

On Impatiens biflora Walt. (I. fulva Nutt.) 1893:50.

On Impatiens aurea Muhl. 1896:217.

- DICÆOMA KUHNLÆ (Schw.) Kuntze.
   On Kuhnia eupatorioides L. 1893:54. 1896:220.
- DIOÆOMA LATERIPES (B. & R.) Kuntze.
   On Ruellia strepens L. 1893:54. 1896:218.
- DICÆOMA LOBELLÆ (Ger.) nom. nov.
   On Lobelia syphilitica L. 1893:54. 1896:220.
- 70. DICÆOMA LUDIBUNDUM (E. & E.) Kuntze. On Carex sparganioides Muhl. 1896:220.
- DIEÆOMA MAJANTHÆ (Schum.) nom. nov.
   On Phalaris arundinacea L. Tippecanoe Co., 10, 1889 (Stuurt).
- DICÆOMA MELICÆ (Syd.) nom. nov.
   On Melica diffusa Pursh. Tippecanoe Co., 10, 1899 (Stuart).
- 73. DICÆOMA MENTHÆ (Pers.) Gray.
  - On Blephilia hirsuta (Pursh.) Torr. 1893:54. 1896:220.
  - On Cunila origanoides (L.) Brit. 1893:54.
  - On Mentha Canadensis L. 1893:54.
  - On Monarda fistulosa L. 1893:54. 1896:220.
  - On Koellia pilosa (Nutt.) Brit. 1893:54.
  - On Koellia Virginiana (L.) MacM. 1893:54. 1896:220.
- 74. DICÆOMA OBTECTUM (Pk.) Kuntze.
  On Seirpus lacustris L. 1894:151.
- . 75. DICÆOMA PAMMELII (Trel.) non. nor. (Puccinia Panici Diet. and Æcidium Pammelii Trel.)
  - On Panicum virgatum L. 1901:283.
  - On Euphorbia corollata L. 1893:49. 1901:284.
  - 76 DICÆOMA PECKII (De T.) nom. nov.
    - On Carex cephalophora Muhl. Tippecanoe Co., 6, 1902 (Arthur).
    - On Carex stipata Muhl. Tippecanoe Co., 6, 1902 (Arthur).
    - On Carex trichocarpa Muhl. Tippecanoe Co., 11, 1901 (Arthur).
    - On Onagra biennis (L.) Scop. 1893:50. 1896:217.
  - 77. DICÆOMA PHYSOSTEGLÆ (P. & C.) Kuntze.
    On Physostegia Virginiana (L.) Benth. 1894:151. 1896:220.

 DIO EDMA POCULIFORME (Jucq.) Kuntze, (Puccinia graminis Pers. and Æcidium Berberidis Pers.)

On Agrostos alba L. Steuben Co., 8, 1903 (Kellerman).

On Avena sativa L. 1893:53. 1896:220.

On Berberis vulgaris L. 1893:49.

On Cinna arundinacea L. Tippecanoe Co., 4, 1901 (Arthur).

On Dactylis glomerata L. 1896:220, 223.

On Hordeum jubatum L. 1896:220, 224.

On Poa compressa L. 1893:53.

On Poa pratensis L. 1893:53.

On Triticum vulgare L. 1893:54. 1898:188.

79. DICÆOMA PODOPHYLLI (Schw.) Kuntze.

On Podophyllum peltatum L. 1893:54. 1896:221. 1898:189.

80. DIOÆOMA POLYGONI-AMPHIBII (Pers.) Arth.

On Geranium maculatum L. 1893:49. 1896:217. 1898:188.

On Polygonum emersum (Mx.) Brit. (P. Muhlenbergii Wats.) 1893:55,

On Polygonum hydropiperoides Michx. 1898:184. 1898:189.

On Polygonum lapathifolium L. 1898:184.

On Polygonum Pennsylvanicum L. 1898:184.

On Polygonum punctatum Ell. (P. acre H. B. K.) 1893:55, 57.

81. DICÆOMA POLYGONI-CONVOLVULI (Hedw.) Arth.

On Polygonum Convolvulus L. 1898:184.

On Polygonum scandens L. 1896:223.

On Polygonum Hartwrightii Gray. Steuben Co., 8, 1903 (Kellerman).

82. DICÆOMA PRENANTHIS. (Pers.) Kuntze.

On Nabalus albus (L.) Hook. 1893:55. 1896:221.

83. DICÆOMA PUNCTATUM (Str.) nom. nor.

On Galium asprellum Michx. 1893:53.

On Galium concinnum T. & G. 1893:53.

On Galium triflorum Michx. 1893:53.

84. DICÆOMA PUSTULATUM (Curt.) nom. nov.

On Andropogon furcatus Muhl. Jasper Co., 6, 1903 (Arthur).

On Andropogon scoparius Michx. Jasper Co., 3, 1903 (Arthur).

On Comandra umbellata (L.) Nutt. 1893:50.

85. DICÆOMA RANUNCULI (Seym.) Kuntze.

On Ranunculus septentrionalis Poir. 1893:55.

86. DICÆOMA RHAMNI (Gmel.) Kuntze. (Puccinia coronata Cda. and Æcidium Rhamni Gmel.)

On Avena sativa L. 1896:219. 1898:189.

On Calamagrostis Canadensis (Mx.) Beauv. 1893:53.

On Rhamnus lanceolata Pursh. 1898:184.

87. DICÆOMA SAMBUCI (Schw.) nom. nov. (Puccinia Bolleyana Sace.)

On Carex lurida Wahl, 1893:52.

On Carex Frankii Kunth. 1893:55. 1898:187.

On Carex trichocarpa Muhl. 1893:52. 1896:219.

On Sambucus Canadensis L. 1893:50.

88. DICÆOMA SANICULÆ (*Grev.*) Kuntze.
On Sanicula Canadensis L. 1893:55.

89. DICÆOMA SILPHII (Schw.) Kuntze.

On Silphium sp. 1893:55.

On Silphium integrifolium Michx. Tippecanoe Co., 8, 1901 (Dorner .

90. DICÆOMA SORGHI (Schw.) Kuntze.

On Zea Mays L. 1893:54, 1898:188.

91. DICÆOMA TARAXACI (Plowr.) Kuntze.

On Taraxacum Taraxacum (L.) Karst. 1893:53. 1896:219. 1898:188.

92. DICÆOMA TENUE (Burr.) Kuntze.

On Eupatorium ageratoides L. 1893:55. 1896:221.

93. DICÆOMA THALICTRI (Chev.) Kuntze.

On Thalietrum dioieum L. 1893:55.

94. DICÆOMA URTICÆ (Schum.) Kuntze. (Puccinia Caricis Reb. and Æcidium Urticæ Schum.)

On Carex riparia Curt. Steuben Co., 8, 1903 (Kellerman).

On Carex stricta Lam. Tippecanoe Co., 4, 1901 (Arthur); Steuben Co., 8, 1903 (Kellerman).

On Urtica gracilis Ait. 1898:185.

95. DICÆOMA VERBENICOLA (E. & K.) nom. nov. (Puccinia Vilfæ A. & H.)

On Sporobolus longifolius (Torr.) Wood. 1896:221.

On Verbena stricta Vent. 1896:218.

- 96. DICÆOMA VERNONLÆ (Schw.) Kuntze.
  On Vernonia fasciculata Michx. 1893:55.
- 97. DIOÆOMA VEXANS (Farl.) Kuntze.
  On Bouteloua curtipendula (Michx.) Torr. 1901:283
- 98. DICÆOMA VIOLÆ (Schum.) Kuntze.
  - On Viola obliqua Hill (V. cucullata Ait.). 1893:56.
  - On Viola striata Ait. 1893:56.
  - On Viola pubescens Ait. Decatur Co., 5, 1889 (Arthw); Tippecanoe Co., 4, 1898 (Arthw).
- DICÆOMA VULPINOIDIS (D. & H.) Kuntze.
   On Carex vulpinoidea Michx. 1893;56. 1896;221.
- 100. DICÆOMA XANTHII (Schw.) Kuntze.
  - On Ambrosia trifida L. 1893:56, 1896:222.
  - On Xanthium Canadense Mill. 1893:56. 1896:222.
  - On Xanthium strumarium L. 1893:56.
- 101. GYMNOSPORANGIUM GLOBOSUM Farl. (Ræstelia lacerata Fr.)
  - On Cratægus coccinia L. 1893:56.
  - On Cratægus Crus-Galli L. 1894:153.
  - On Cratægus mollis (T. & G.) Scheele. (C. subvillosa T. & G.) 1898:186. 1898:188.
  - On Cratægus punctata Jacq. 1893:56.
  - On Juniperus Virginiana L. 1893:51.
- GYMNOSPORANGIUM JUNIPERI-VIRGINIANÆ Schw. (Ræstelia pyrata Thax.)
   On Malus coronaria (L.) Mill. (Pyrus coronaria L.) 1893;56,
  - 1896:218.
  - On Malus Malus (L.) Brit. (Pyrus Malus L.) 1898:186, 1901:255.
  - On Pyrus communis L. 1893:56.
  - On Juniperus Virginiana L. 1893:51. 1896:218. 1901:255.
- Jackya Cnici (Mart.) nom. nov. (Puccinia Cirsii-lanceolati Schroet.)
   On Carduus lanceolatus L. 1893:53.
- 104. PILEOLARIA BREVIPES B. & Br.
  - On Rhus radicans L. (R. Toxicodendron Am. Auet.) 1893:58 1896:223.
- UROPYXIS AMORPHÆ (Curt.) Schroet.
   On Amorpha canescens Pursh. 1893;58.

